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MAGAZINE OF THE MILITARY SEALIFT COMMAND

DECEMBER 1976

Happy Holidays

As inevitable as taxes is the end of each current year—and the immediate beginning of a new one. Our observances of each holiday season also seem to follow comparable patterns, varied though they may be.

As we enter the holiday season, emphasis will be placed on religious precepts, brotherhood, compassion and giving thanks for the blessings and good fortune bestowed upon us. For some, the holidays are a period to relax, to reflect upon what has been and what the new year may bring. For many, it is a time to make resolutions, to set new goals. Others, especially the younger generation, look forward to the holidays with great joy. It is a time when new treasures are added to their possessions, a time to visit grandparents and to bask in the glow of their love and pride, and to savor a break in the school routine which gives them an opportunity to enjoy the wonders of the outdoor world without worry about next day's school lessons.

Others, notably adults who may have misplaced their belief in Santa Claus, who are perhaps more cynical than they should be as the result of their year-long pursuit of things material—both necessity and luxury—look upon the holidays as an occasion to overindulge and, for a moment, to forget the worries inherent to life's daily struggle. Occasionally we suffer lapses in judgment that can provoke serious consequences.

There are also those who use the occasion to attempt to explain the true meaning of the holiday season. There is considerable risk involved since each of us is the final arbiter of what we believe and what we do, subject only to our acceptance of the natural consequences of our attitudes and our activities.

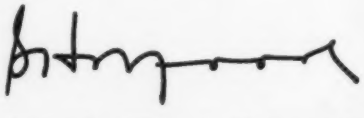
But, most would probably agree that if there is a universal holiday theme that men and women of every persuasion can accept, it is the thought illustrated by the simple phrase "Peace on earth, good will to men."

Today, ours is a nation at peace. But that peace is tenuous since "good will," like sources of energy, is not infinite. It exists in abundance, but, just as it can grow, it also can be depleted. When man imposes his beliefs on an adversary, when he seeks to conquer and hold new territory, when he seeks to dominate the lives of others who share this earth, he jeopardizes our continued peaceful existence.

Fortunately, mankind is many faceted. We are sometimes compassionate, sometimes not. We are sometimes greedy, more often generous. We sometimes seem to be concerned only with ourselves, but more frequently we exert great effort to help one another, be they friend, casual acquaintance or complete stranger.

Man has a special quality. He can recognize his weaknesses and inconsistencies. He can alter his attitudes, and he can adjust his behavior to attain new and even more lofty goals. He can hope, and through his own efforts, he can achieve many of his dreams.

My hope for each member of the Military Sealift Command and for every member of your families is that 1976 will continue to burn bright in your memories, but that 1977 and the years that follow will bring you health, happiness and the greatest possible success.



Commander, Military Sealift Command

COVER: Able-bodied Seaman Jerry Blanchard hauls on a hawser as the USNS Comet ties up at Vlissingen, Netherlands. See story on page 6.

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Sealift

MAGAZINE OF THE MILITARY SEALIFT COMMAND

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The sheets were frozen hard, and they cut the naked hand;

The decks were like a slide where a seaman scarce could stand.

Christmas At Sea

By Robert Louis Stevenson

The sheets were frozen hard, and they cut the naked hand;
The decks were like a slide, where a seaman scarce could stand;
The wind was a nor'-wester, blowing squally off the sea;
And cliffs and spouting breakers were the only things a-lee.

They heard the surf a-roaring before the break of day;
But 'twas only with the peep of light we saw how ill we lay.
We tumbled every hand on deck instanter, with a shout,
And we gave her the maintops'l, and stood by to go about.

All day we tacked and tacked between the South Head and the North;
All day we hauled the frozen sheets, and got no further forth;
All day as cold as charity, in bitter pain and dread,
For every life and nature we tacked from head to head.

We gave the South a wider berth, for there the tide-race roared;
But every tack we made brought the North Head close aboard;
So's we saw the cliffs and houses, and the breakers running high,
And the coastguard in his garden, with his glass against his eye.

The frost was on the village roofs as white as ocean foam;
The good red fires were burning bright in every 'longshore home;
The windows sparkled clear, and the chimneys volleyed out;
And I vow we sniffed the victuals as the vessel went about.

The bells upon the church were rung with a mighty jovial cheer;
For it's just that I should tell you how (of all days in the year)

This day of our adversity was blessed Christmas morn,
And the house above the coastguard's was the house
where I was born.

O well I saw the pleasant room, the pleasant faces
there,
My mother's silver spectacles, my father's silver hair;
And well I saw the firelight, like a flight of homely
elves,
Go dancing round the china-plates that stand upon the
shelves.

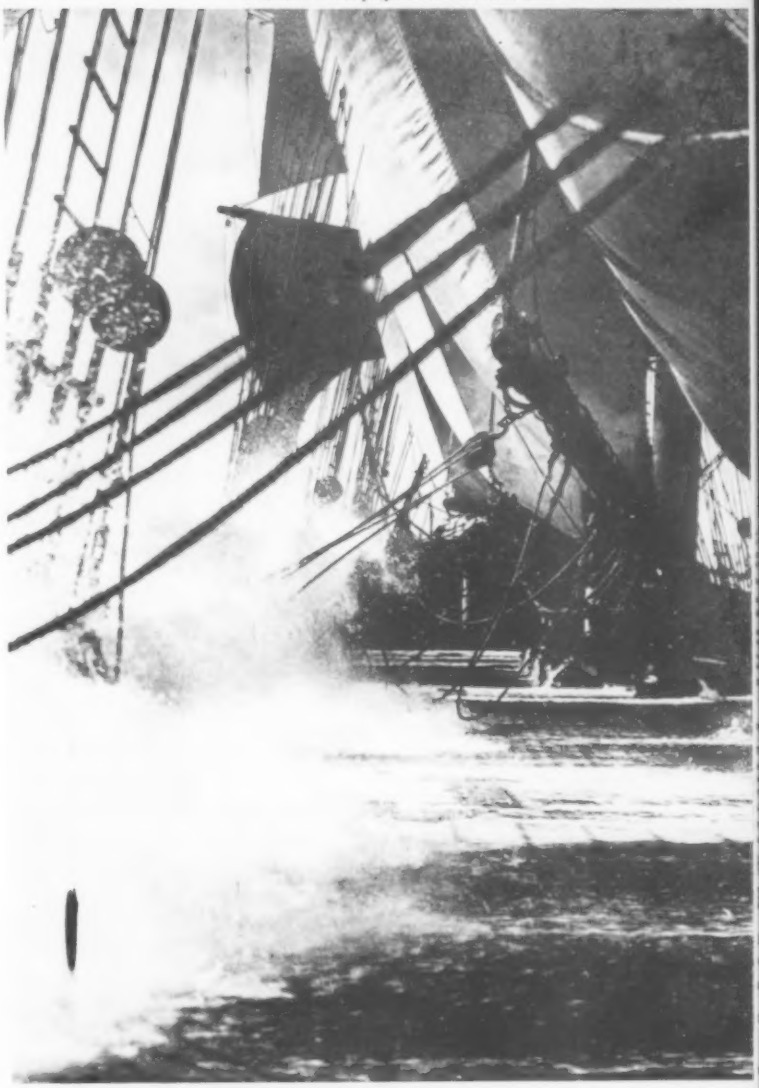
And well I knew the talk they had, the talk that was of
me,
Of the shadow on the household and the son that went
to sea;
And O the wicked fool I seemed, in every kind of way,
To be here and hauling frozen ropes on blessed
Christmas Day.

They lit the high sea-light, and the dark began to fall.
"All hands to loose topgallant sails," I heard the
captain call.
"By the Lord, she'll never stand it," our first mate,
Jackson, cried.
"It's the one way or the other, Mr. Jackson," he replied.

She staggered to her bearings, but the sails were new
and good,
And the ship smelt up to windward, just as though she
understood.
As the winter's day was ending, in the entry of the
night,
We cleared the weary headland, and passed below the
light.

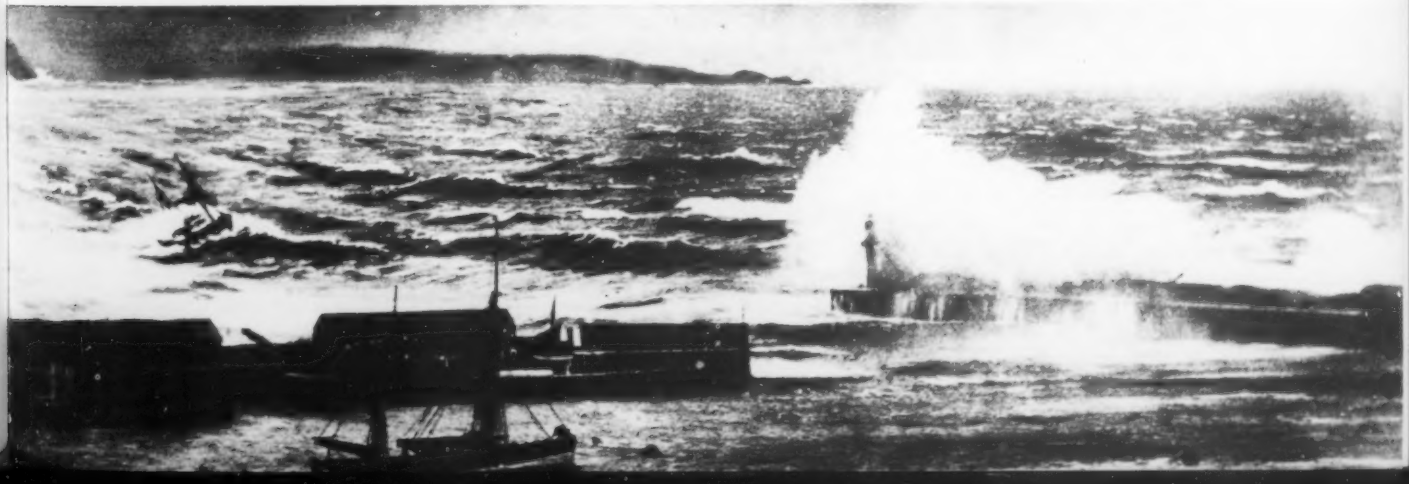
And they heaved a mighty breath, every soul on board
but me,
As they saw her nose again pointing handsome out to
sea;
But all that I could think of, in the darkness and the
cold,
Was just that I was leaving home and my folks were
growing old.

Photos courtesy of San Francisco Maritime Museum



The wind was a nor'wester,
blowing squally off the sea.

And cliffs and spouting breakers
were the only things a-lee.



Men of the USNS Comet

Each with a tale to tell, each with a reason to give for choosing a life at sea

By Louis R. Granger

ABOARD USNS COMET IN THE NORTH ATLANTIC—"She's done a tremendous job and she is still doing it. Right now this ship is doing exactly what she was designed to do—carry combat loads to another country."

That assessment of the USNS Comet was made by its master, Capt. Edward A. Lanni, as the roll-on, roll-off ship Comet was heading for the Netherlands loaded with 540 vehicles, weighing more than four million pounds.

Included were Mules, Gamagoats, Jeeps, other assorted trucks and passenger vehicles, ambulances, howitzers and generators—all destined for West Germany to be used in NATO maneuvers to test the effectiveness of the trans-ocean movement of combat equipment to a war zone and the support concepts of European nations involved.

In all, 12,000 division troops were airlifted to Europe to join other troops stationed in Germany.

Just under 500 feet long, the USNS Comet was built as a prototype roll-on, roll-off ship with break-bulk or dry cargo capability. Her main deck is packed with gear that makes the 19-year-old vessel suited to her task. She carries 61 winches on deck and 22 cargo booms including four 10-ton booms, sixteen 15-ton booms, and two 60-ton booms.

The Comet was constructed for a special requirement, to rapidly load and unload wheeled and tracked vehicles. With a draft of 22 feet, the ship can take cargo to the smaller ports of the world and discharge vehicles through any of four side ports, two on each side, a stern ramp or from her holds by use of the many booms on the length and breadth of her main deck.

The ramp to the stern opening is a permanent part of the ship and two portable ramps for the side ports are carried on deck.

In an emergency, rapid unloading is not only desirable, but vital. Ships are vulnerable to enemy fire and the longer it takes to discharge them, the greater chance there is of damage or even sinking.

The capability of the Comet was illustrated in January 1964 when in 55 minutes during routine discharge operations, 386 wheeled and tracked vehicles were rolled off the ship at a conventional pier at Bremerhaven, a discharge rate of one vehicle every 8.55 seconds. This time could have been shortened by 11 minutes but two carbon monoxide alarms sounded in the holds due to exhaust gases—and delayed unloading. The stevedores for this operation were U.S. soldiers, many of whom had never seen the Comet before.

Although he is only 51 years old, Captain Lanni began his seagoing career 37 years ago on the Great Lakes as a 14-year-old deck hand. In 1944 he became a purser for the South Atlantic Steamship Co., moving to Marine Transport Lines later that year.

In July 1945 Lanni joined Army Transport Service as an able-bodied seaman on oceangoing tugs out of New York, and then in the Pacific. He transferred to MSC when it was formed in 1949. In 1950 he was licensed as a third officer and the next year served as third mate on the troopship USNS Haan.

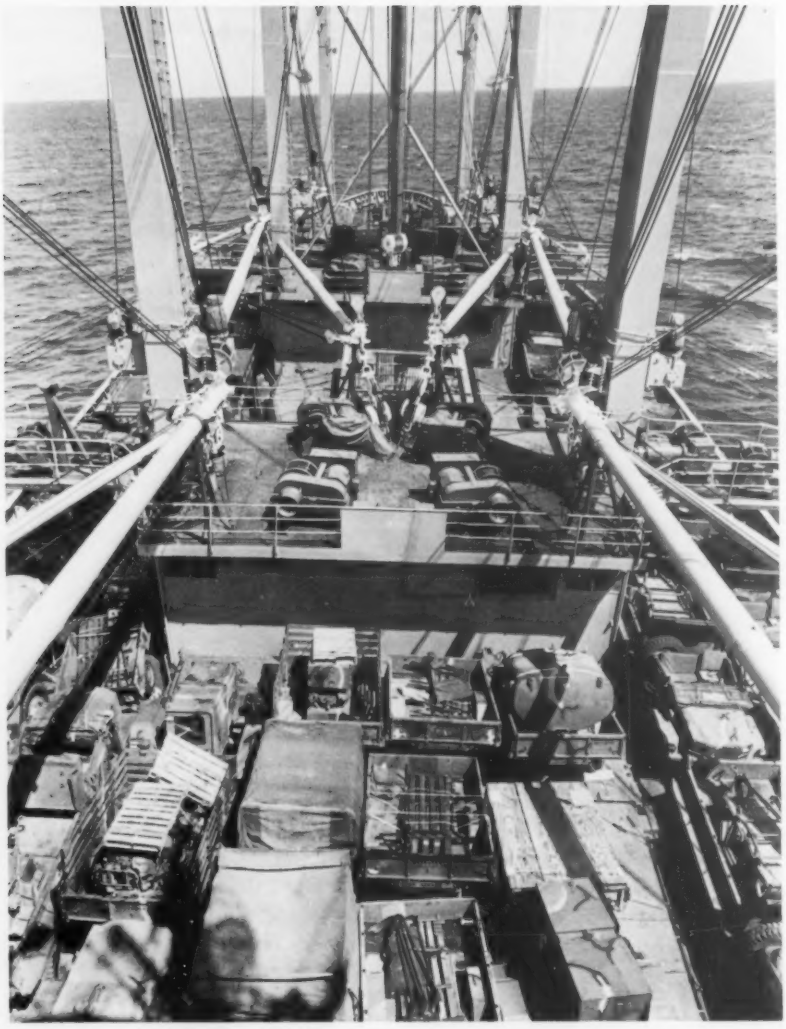
Steadily upgrading his licenses, Lanni advanced to second officer on LST 694 in the Arctic and first officer on the Victory ship USNS Craig in 1957. In 1962 he became MSC's first civilian representative in the Arctic.

Lanni then made a second tour aboard Comet having served as first mate for three years in the late 1950s and early 1960s. His first command was aboard the oceanographic research vessel USNS Kellar. In 1969 he served again on the Comet as first mate and relieved as master in 1970.

The following year Lanni went ashore and worked in the Atlantic area command fleet support division as a marine transportation specialist. In 1971 he was assigned as deck relief officer at Brooklyn. Lanni returned to sea duty and commanded several ships including the Antarctic resupply vessel Towle for Operation Deep Freeze. He was assigned to the Comet in May 1976.

With Captain Lanni as master, the Towle made its last trip to Antarctica last winter. MSC ships are well known to the New Zealanders at Port Lyttelton where the cargo ships dock before heading for McMurdo on the Antarctic continent. Lanni received permission to leave a memento, the ship's bell which was given to the Christ Church museum for its new wing on Antarctica.

Since the Towle's new bell had not arrived, local authorities made their own presentation to the ship. A 105-year-old bell from an abandoned church was given to the vessel. On return to the United



Her deck and holds packed like a sardine can, Comet is headed for Europe.

States, Captain Lanni presented that bell to MSC, Atlantic Commander Rear Adm. Frank B. Guest. It is now on display in the admiral's office.

The Towle's old bell will not be silent, however. If anything it will ring more now than aboard ship. "I told the museum curator it was a shame that the Towle's bell would not ring anymore," related Lanni. "And he said, 'Oh, but it will ring, at the museum's closing each day.' "

To Captain Lanni the USNS Comet is an ideal type of ship for MSC—particularly suited for its contingency missions.

"This type of ship is the best there is. We have breakbulk plus roll-on, roll-off capability. The majority of military equipment is on wheels or tracks, as in the case of tanks. And we carry POVs (privately owned vehicles) and do it cheaper than a breakbulk ship," he said.

Comet was in Vietnam for six years during the war. But, because it was a prototype, shipping planners did not understand the full capability of the ship such as the ability to change draft, bow or stern, by transferring fuel or ballast between tanks. Lanni said the conventional breakbulk ship of the Comet's size does not normally have the ballast or fuel capacity of the Comet and therefore would not have the capability to alter draft to the degree of the Comet.

To prove his ship's capability, Lanni, as cargo officer, would get cargo loaded on Comet that was destined for other ships. One ploy was to write "Comet" on the sides of vehicles and other cargo. Longshoremen seeing the name automatically loaded the cargo. "By then it was too late to move it off and we sailed with it. The planners finally learned the Comet could do more than they believed," he said.

Although Captain Lanni believes commercial shipping companies could provide enough U.S.-flag ships for a small contingency, in any major conflict the United States would have to rely also on the aging ships in the National Defense Re-

Capt. Edward Lanni gives maneuvering orders. Another roll-on, roll-off ship, William M. Callaghan, is in the background.

serve Fleet. These measures would result in a considerable reduction, if not total loss, of the U.S. import-export trade, now carried mostly by foreign-flag fleets, and the costly and time-consuming task of bringing the old breakbulk ships, most World War II Victories, out of the NDRF.

"We have to be ready to go anytime, anyplace. That is why we are here, to move military cargo when and where needed," he said.

Military Sealift Command, he noted, operates only six cargo ships, three on the East Coast and three on the West Coast. Captain Lanni feels "Reforger proved the need for a larger cargo fleet, manned by MSC personnel." Of the four ships in the Reforger exercise, two were chartered vessels, the U.S. Lines' American Ranger and the Adm. William M. Callaghan operated by American Export-Isbrandtsen Lines. The second MSC ship used was the newer MSC roll-on, roll-off ship USNS Meteor, formerly Sea Lift.

"We should have more Meteors. I don't think we can rely solely on commercial ships for national defense," he said.

Built in 1967, the Meteor is 10 years newer than the Comet and has certain features that differ from the prototype. Approximately 40 feet longer and five feet wider than the Comet, Meteor is air conditioned throughout, has improved lighting in the holds, a bridge with 360 degrees visibility, an inside passenger elevator and at 22 knots maximum speed is four knots faster than the Comet. Also, her side ports are hinged on the inside rather than outboard like the Comet. Comet's hinges protrude about two feet and because of this have damaged piers when tide changes were such that the hinges struck the piers. Captain Lanni has recommended that the Comet's hinges be moved inside.

Another feature of the Meteor is that most deck hatches are flush to the deck allowing better stowage of deck cargo.

Like all MSC ships, the Comet travels worldwide to deliver Defense Department cargo. For example, since June 10, 1974 to August 20, 1976, Comet has delivered and loaded cargo at most East and West Coast ports, has transited the Panama Canal four times, visited Hawaii, Philippines, Korea, Okinawa, Taiwan, Ethiopia, Italy, Greece, Crete, Spain, Germany, the Netherlands, Belgium and Portugal.

Following an overhaul this fall, Comet will again transit the Panama Canal and head for Far East ports.

During those two years, two months and 10 days, the Comet has traveled 171,198 miles, more than half the distance to the moon.

—o—

Marine Corps Pfc. Charles Merrell was stationed aboard the battleship USS Maryland and was getting ready for liberty. A Yank In The RAF starring Tyrone Power was playing at the Waikiki Theater and, said Merrell, "I planned to see it that evening."

Before Merrell could leave the ship, however, all liberty had been cancelled. There was no formal announcement. There was no need. The Japanese announced it by attacking Pearl Harbor that Dec. 7, 1941. Merrell was able to see the movie—five years later.

Now second officer aboard USNS Comet, Merrell made the first of his three careers the Marine Corps, retiring in 1960 as a major. During those years he became the first

Marine Corps officer qualified as a navigator and an underway watch officer.

Between the Marine Corps and his current MSC career, Merrell was in the commercial fishing business at Tarpon Springs, Fla. He was captain of a 42-foot diesel powered vessel fishing for red snapper. After three years he became captain of the 42-foot sport fisherman Miss Bavarian owned by the Budweiser Brewing Co. He joined MSC in February 1966 as an able-bodied seaman. The next year he became third officer and in 1968 made second officer. Merrell received his first mate's license in 1975 and sailed as first officer on USNS Neptune.

"I needed to raise my license and that meant getting experience on ocean-going vessels," Merrell said. "Since I had government service it was natural I come with MSC."

As the Comet's second officer, Merrell is in charge of navigating. He plans the routing of the roll-on, roll-off ship, subject to approval of the master. He plots accurate positions of the ship while under way and supervises other watch officers with regard to navigation.

In addition to keeping track of the ship's position, Merrell must maintain all navigation equipment—including charts and publications. The Comet, like many other MSC ships, travels worldwide and so must carry approximately 1,500 charts. The weekly Notice to Mariners published by the Defense Mapping Agency Hydrographic Center lists all changes to the charts such as water depth, wrecks and other obstructions, lights, buoys, and varied aids to navigation. Although not all of the 1,500 charts are changed each week, a recent Notice to Mariners listed more than 500 changes.

Merrell keeps a card on each chart and lists each change which is later transferred to the chart. Updated charts are issued periodically.

A native of Tampa, Fla., Merrell joined the Marine Corps in 1940. After boot camp he was assigned to the battleships West Virginia and later the Maryland. During the war he was on the North Carolina. Just prior to the attack on Pearl Harbor which brought the United States into the war, Merrell was Rear Adm. Isaac C. Kidd's orderly. Admiral Kidd who was on the signal bridge of the Arizona, was killed in the first attack.

Merrell's battle station on the USS Maryland was on the broadside battery "which we couldn't use to defend the ship because it was an air attack. All the Marines aboard assisted the anti-aircraft batteries, carrying ammunition to the Navy gun crews."

The Arizona, moored astern of the Tennessee, took the worst beating of any ship in the fleet. More than 1,000 of her crewmen either burned to death or drowned when the ship settled to the bottom. Moored together were the battleships Maryland and Oklahoma. Maryland was protected from torpedoes by the Oklahoma which was hit early in the attack by a succession of torpedoes and finally rolled until her masts caught in the mud of the harbor bottom. Many of the Oklahoma crew climbed aboard the Maryland and assisted the anti-aircraft gunners.

Maryland was the luckiest of the battleships. Only two officers and two crewmen were killed and 14 were wounded. The only damage she sustained was from two fragmentation bombs and the battleship was the first of the fleet to return to active service, in February 1942.

After the war Merrell attended officers candidate school and was commissioned in May 1946. Upon graduation he was assigned to the amphibious transport USS Okanogan where he learned navigation by studying on his own initiative and asking questions.

Merrell is married to a former Marine Corps officer who takes his traveling philosophically. "As a former Marine she knows what it is to travel," he said.

The Merrells have seven children. Their only son is a high school senior who plans to attend Texas Maritime College at Galveston. Two daughters are registered nurses, two

Charles Merrell *His third career*

are in high school and two in elementary school.

Merrell takes sailing somewhat philosophically, too. "I'm enjoying myself and as long as my health is good I'll continue to sail."

—o—

To Chief Steward Willie Terry, Jr., USNS Comet "is a bean-eating ship. The men like any kind of beans and I hate 'em. They also like steak and anything expensive."

Woe the poor steward. Trying to please everyone, and sometimes pleasing no one. But the 56-man crew of the roll-on, roll-off ship Comet is far from skin and bones. Many are on diets and some should be, but all-in-all there are few complaints and those are good natured ones.

"On each menu there are three entrees, two salads, three desserts and fresh milk," Terry said. And he keeps a midnight snack in the refrigerators in both the crew mess and the officer mess. Hunger pangs and tummy rumblings are rare aboard the Comet.

Born in rural Fairmont, W. Va., Terry graduated from Dunbar High School in 1951 and joined the Air Force for four years. The "Big Apple" beckoned but good jobs didn't. He became a porter for the New York City Housing Authority and then worked as a construction laborer.

"My wife said years ago, 'If you want a job you must go after it; it won't come to you.' " Terry thought about going to sea. Like countless seamen before him and those who will come after him, visions of exotic ports and palm-lined beaches danced like sugar plums in his head. But without experience, maritime union halls were closed to him.

"I heard of Military Sealift Command through friends and they told me I probably couldn't get in a maritime union so try MSC. I figured it was an exciting life and I could get paid for seeing the world. And I figured if there were jobs out there I could do one of them.

Willie Terry, Jr. *From galleyman to chief*

"I wanted to get into the engineering department, but there were no openings." There was, however, a job as a pots and pans washer, or galleyman, aboard the tanker Chatahoochee, and in 1960 Terry began his sea career.

That same year Terry was promoted to second cook and baker. He worked aboard several oceanographic ships in various capacities in the stewards department and in 1975 became chief steward on the Mizar, an MSC oceanographic vessel. He went aboard the Comet last May.

Unlike those who "do as little as they can as fast as they can," Terry wanted to advance so he took correspondence courses. Instead of spending his free time in the world's gin mills, he studied. "I asked a lot of questions and applied myself," he added.

At the beginning of each voyage the ship has an inventory of between $21,000 and $26,000 in food, more than twice as much as will be consumed. "We put more aboard for emergencies such as meeting a crippled ship and rescues and still have adequate supplies for the crew." Terry is allowed $3.25 a day to feed each man, or $182 a day for the entire crew. "I can't serve lobster often but $3.25 is adequate."

Terry has 10 crewmen working for him including five utilitymen who keep the interior of the ship clean. All officers and chief petty officers have their rooms cleaned and beds made daily by the utilitymen.

Each morning Terry checks the temperature of the refrigeration (reefer) and freeze boxes and inspects the galley and dining rooms. After issuing necessary instructions to the utilitymen he makes up the next day's menu after discussing it with the chief cook, Jose Rohena. "Then I break out the food assisted by the third cook, Wilton Burcher." At the end of the day he makes a record of items used.

The steward has direct responsibility for the amount of food set out for the next day so there will not be

too much or too little. Meats go directly into the galley and frozen foods into the thaw boxes.

"Never refreeze cooked meats," Terry warned. "Don't keep cooked meats over 72 hours. If you have meat left over you can use it the next day in stews or for sandwiches. Most stewards get into trouble by fattening the garbage can. You must know how much to use and when to use it."

Besides the daily routine of the chief steward he gives two hours a month training for each man in the department, and keeps monthly records of what is used as well as a quarterly inventory. He also orders items for the engineering and deck departments sed to maintain the interior cleanliness of the ship, such as rags, cans, deck tiles and work clothing.

Through an overseas agent or MSC representative Terry purchases fresh vegetables and fruit when the ship reaches a foreign port. Receipts are usually given in the currency of that country and weights and measures are listed in metric measures. It's up to Terry to translate these into dollars and pounds for his records and reports.

A seemingly easy-going person who is not reluctant to wash a dish or mop a deck when the need arises ("I came from the sink and I'm not too proud to get my hands wet"), Terry has firm ideas about the men he has worked with and the seaman's life.

"My biggest hang-up is a man drinking at sea. He's a hazard to himself and he's a hazard to the ship. I saw a fellow fall down a ladder when he thought he was grabbing a rail. And I think the doctor's sick leave form is sometimes abused. If a man is sick, okay, he should be off, but some of them have abused it."

To Terry "shipping is nothing like it was years ago. We had to come aboard with shoes shined, clothes pressed and fingernails clean. Then the life was beautiful, really good. A man must be convinced his job is his friend; that it's important. Just because a man is making beds doesn't mean it's not important. It is."

"I emphasize to my men that this is our home. It's all we got out here."

—o—

When Steve Raimondo was a teenager and contemplating a career, he thought, "I like to travel. Columbus was Italian and so was Marco Polo, so I said, why not me." That was more than 30 years ago and for the past 28 years Raimondo has followed the lead of his illustrious Italian heroes.

Raimondo wasted no time once his mind was made up. In 1946 when he was 17 he attended the Sheepshead Bay Maritime School and upon graduation was drafted—in the Army field artillery. He was out in two years and finally went to sea as an ordinary seaman with Isthmian Lines, Inc. After brief jobs with Ocean Transport Lines and Seatrain Lines he joined Military Sealift Command in 1951. His first vessel was the troop ship General Hershey.

"I've sailed on practically every ship in MSC and on every cargo ship in the command," he said.

An able-bodied seaman aboard the USNS Comet, Raimondo first sailed on the Comet in 1967 and remained aboard for four years mostly sailing to the Far East. It was there that he met his wife, a native of Thailand. Comet Master Edward Lanni was the official host at the wedding. Captain Lanni and Raimondo have been sailing off and on together since 1962 when they were aboard the USNS Craig.

Raimondo does not hesitate when asked whether he would follow the sea if he could begin again. "Yes, but next time I'd get my third mate's license. It's a great life, believe me. I love the travel and

Steve Raimondo *A great life*

Scraping and painting is a way of life at sea, says Ordinary Seaman Angel Orteiz.

A grease gun is passed in this shipboard ballet scene.

Third Cook Wilton T. Burcher puts together a salad in the galley.

Able Bodied Seaman Faciane keeps Comet steady course.

This is the "crewman" who gets dunked during man overboard drills.

Chief Electrician Keith Sonner received his 30-year Federal service pin in August while sailing to Holland.

Apparently happy in his work is maintenance man Martin O'Toole.

The Comet twin screw system requires two sets of hands in the engine room. First Asst. Engineer Harry Levang (right) and Third Asst. Matthew Kucka adjust throttles.

meeting people. I learned Italian at home and since I've been sailing I've picked up German and Spanish. And I was doing good with Japanese when we were in the Far East. If I have a son (the Raimondos have a three-year-old daughter) I'd recommend the sea life, but I would send him to a maritime academy first."

Although Raimondo is satisified with his seagoing career except for the long absences from his family, he is not content sailing on any type of ship.

"I've always liked freighters and especially the Comet, but I don't like oceanographic ships. They are always going around in circles. They don't go anyplace. I like to go places and see different things," he said.

—o—

"This is great if you are willing to work and learn. I've gained a vast amount of knowledge and it puts all the pieces together."

Bruce Ridley, midshipman from Maine Maritime Academy, was summing up his summer aboard the USNS Comet as a trainee in the engine department.

"It will be tough trying to remember everything. I've had a lot of basics in school and this ties things up. It also is preparing me for the next part of school."

Ridley, 21, of Farmington, Maine, is a junior and is studying for his third assistant engineer license and a bachelor of science degree. Maine Maritime Academy was the first state maritime school to provide summer jobs aboard merchant ships so their students would get commercial sailing experience.

The academy also has its own training ship, the former MSC troopship USNS Upshur, now named the State of Maine. Maine students spend their first and third summers aboard the training ship and their middle summer sailing on commercial ships.

"It's expensive for MSC and the companies to do this," said Ridley, "but they find out about you and if you do a good job maybe they will be interested when you graduate. If I produce now MSC is more likely to hire me over someone who hasn't been on these ships."

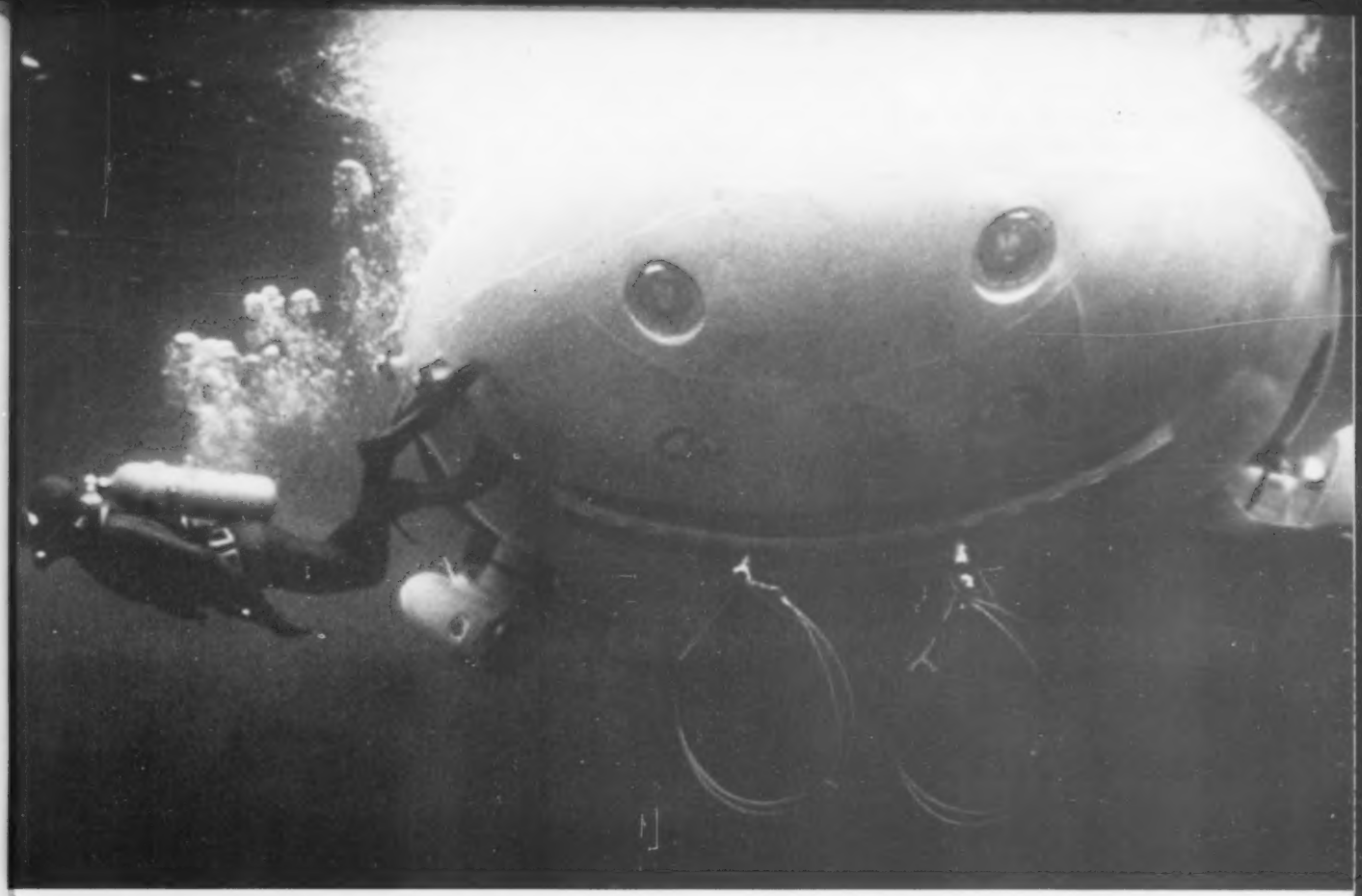
After getting his degree Ridley would like to sail aboard deep sea tugs. "But those jobs are hard to find. If I can't do that then I'll go to sea. I don't want to waste my license. I'll try to get it upgraded at sea and then maybe I can move to tugs."

Ridley also indicated he might like to sail with MSC. "It's a good place to upgrade your license because you can ship year-round. The union only allows you to work six months at a time so more people can work." (The Coast Guard which issues maritime licenses requires a certain amount of sea time before giving examinations to upgrade licenses).

Working in the engine room is only part of Ridley's at-sea education. A school project is a series of questions he must answer and sketches he must make of the various ship systems the engineers deal with. "This keeps me busy and in talking with the experienced men I get information you can't get in textbooks, like how to deal with the crew, for example."

⚓

Bruce Ridley *Getting experience*



A diver seems to be under the steely gaze of the scientific underwater prober Deep Quest off the coast of Southern California.

From Yacht to Mini-Sub, MSC Has Used Them All

By Louis Panarale

Since its inception in 1949, Military Sealift Command has given credence to the adage that necessity is the mother of invention. MSC also has learned that necessity can be a harsh dictator, demanding results on short notice. To meet requirements of the Army, Navy, Marine Corps and Air Force, through the years the command has been asked to provide a wide variety of vessels that float, even an 80-foot sailing yacht, and some that sink, like mini-submarines.

For the sake of safety, MSC has provided uncomplicated craft, such as hopper barges for dumping obsolete Army ammunition at sea, and sophisticated ships for laying and repairing cables with the aid of undersea TV cameras.

When brute strength was needed, the command chartered the most powerful U.S.-flag tug to transport landing craft to France. When a delicate touch was called for, a wooden-hulled boat was used to transport equipment and personnel to Navy submarines.

MSC briefly controlled the sailing yacht Alpha in 1954 to support an Air Force research project in the Caribbean. MSC had been asked to provide a small craft that could transport supplies and equipment and accommodate five technicians during a research expedition.

The trim ketch arrived in San Juan, Puerto Rico from Halifax, Nova Scotia, after a rough tussle en route with Hurricane Hazel. The boat was operated by its owner Louis Kenedy, his wife and a crew of six. At San Juan, Kenedy picked up six Air Force technicians and continued the mission.

Alpha was built in Holland and owned by British and American

yachtsmen before Kenedy acquired it. The steel-hulled yacht had three state rooms and an auxiliary diesel engine.

Among the more ticklish assignments MSC had taken on was its employment of hopper barges in 1959 to dispose of obsolete high explosive bombs for the U.S. Army.

MSC invited bids for the hazardous job, and Hughes Bros., Inc., of New York, whose firm was appropriately named Clearinghouse for Marine Difficulties, was selected.

The plan was to load bombs in a hopper barge and tow it by tug to sea. The bombs would then be released by a remote control hookup from the tug which would be lying safely a mile or so away.

The bombs were gathered from Army ammunition dumps and delivered to Sunny Point Army Terminal at Wilmington, N.C. Units of about 900 tons each were then placed aboard the hopper barge and towed to a disposal area about 200 miles east of Savannah, Ga.

The bombs ranged in size from 5-pound anti-personnel types to 4,000-pound blockbusters. Dropping the bombs through the bottom of the barges was suggested by MSC officials for safety's sake.

After two trips in which the releasing gear failed to function, and several bombs hung up in the hoppers, the system was redesigned. The remaining ammo was dumped without further incident. Four trips over a three-week period were required to dispose of the entire lot.

In 1962, the most powerful commercial tug under the American flag was the newly built M. Moran of Moran Towing Company, N.Y. The 3,500-horsepower tug made history under MSC contract when it towed four utility landing craft (LCU) in tandem from the Charleston, S.C. Army depot to St. Nazaire, France.

It was believed to be the first time LCUs had ever been towed across an ocean. The 120-foot LCUs, worth about $620,000 apiece, were stretched out for nearly a mile behind the twin-engine and twin-screw tug. The 3,500-mile ocean tow to St. Nazaire took 21 days, with the tug averaging eight knots.

The buildup of U.S. troops during the war in Vietnam in 1964 brought a need for expanded communication links in Southeast Asia. Existing undersea cable lines were over-burdened. MSC awarded a contract to U.S. Underseas Cable Corp. to provide a ship to lay additional cables in the South China Sea.

The ship used for laying some of the badly needed cables and repairing them when needed, was the Neptune.

The Neptune was unique, more than a cable laying and repair ship. It was also a floating research vessel equipped with electronic devices that could detect line breaks. During cable laying operations, an IBM computer system was used to monitor operations.

Built at Lubeck, Germany in 1962, Neptune was one of the newest and most modern of the several cable ships assigned to the job, capable of laying a hundred miles of cable each day.

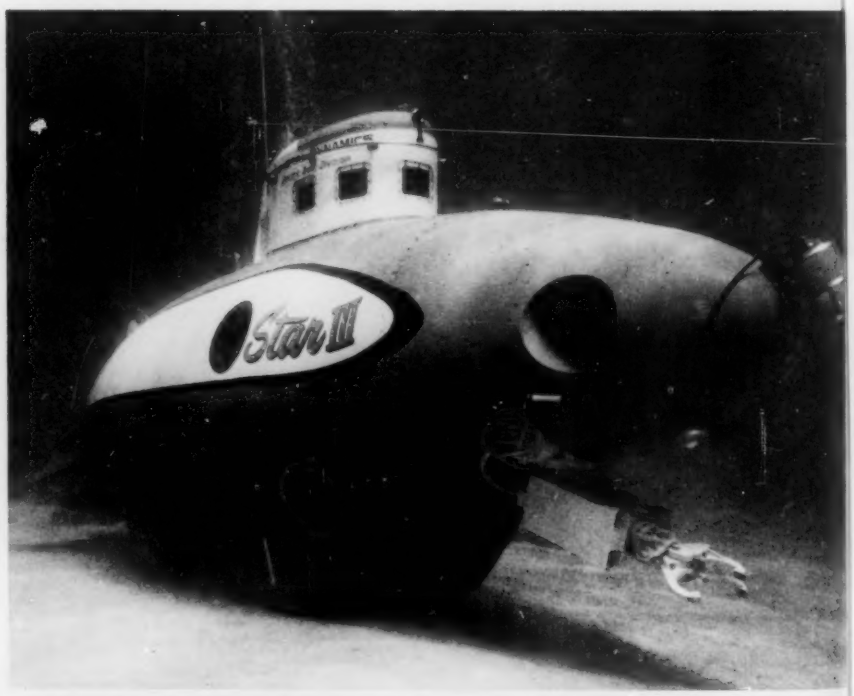
Crews aboard Neptune laid 740 miles of cable between Vietnam and the U.S. Naval Communications Center at San Miguel in the Philippines. They later put down 1,500 miles of cable connecting six coastal cities of Vietnam and Thailand. By 1969, Neptune had the job of maintaining more than 2,000 miles of telephone lines in the South China Sea.

Over the years, MSC has secured all shapes and sizes of ships. Probably the smallest was a 24-foot submarine.

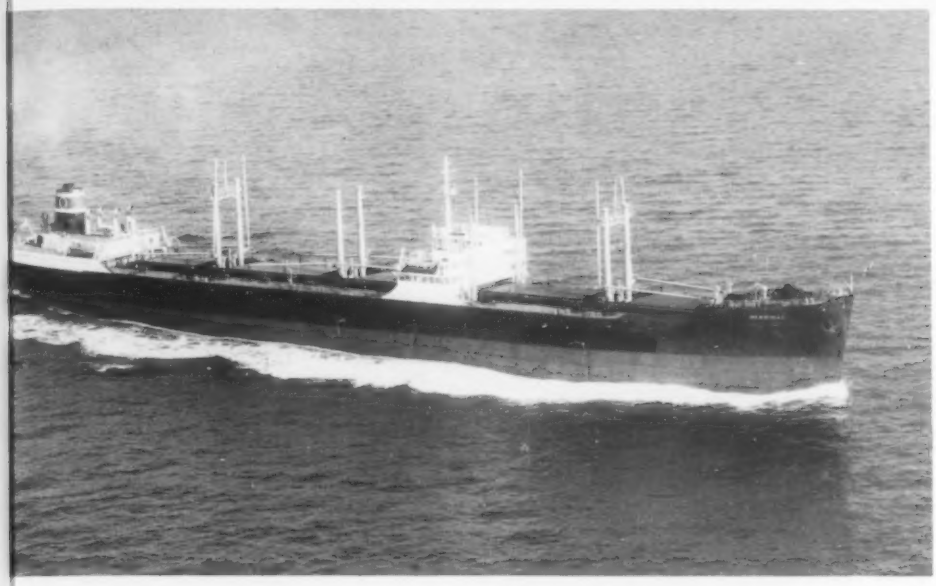
The U.S. Naval Underwater Sound Laboratory at New London, Conn., needed a platform in 1966 to test underwater listening devices off the coast of Bermuda.

A submarine was the answer. MSC was given the task of finding one. The vessel MSC finally came up with was really a "submersible," built and owned by General Dynamics of Groton, Conn.

The little underseas boat was called Star III, short for Submarine, Test and Research. It had the ap-



Star III can go as deep as 2,000 feet for 12-hour periods with a two-man crew.



The coal carrier SS Merrimac was used to lift helicopters from Germany to the United States.

pearance of a toy but it was far from that.

A two-man crew could take Star III down 2,000 feet for surveys or salvage operations. The 10-ton craft could do up to 6 knots and could stay submerged for 12 hours while the two men poked around the ocean bottom with the aid of a mechanical arm.

The submersible was not so independent that it could operate at great depths and distances without a mother ship. Since Underwater Sound Laboratory wanted to conduct a series of accoustical experiments, it asked MSC to provide a complete package—a submersible and attending vessel. The mother ship used for the 46-day experiment was the motor vessel Huge Tide, an oil-rigged tending boat from the Gulf of Mexico.

Star III crews conducted accoustical experiments at varying depths while scientists aboard Huge Tide monitored their operations. Huge Tide also served as a delivery ship, hoisting the little submarine aboard and carrying it to the next test site.

In 1967 MSC again chartered the Star III for tests conducted by the Naval Oceanographic Office. Objective of the tests conducted 45 miles southeast of Key West, Fla., was to provide data for design of an underwater survey vehicle.

The Naval Oceanographic Office and MSC teamed up again in 1970 off the coast of Santa Barbara, Calif. Using the MSC chartered mini-sub Deep Quest, technicians made 20 dives to check out a possible site for an experimental underwater habitat.

The scientists also surveyed a 15-mile channel bottom to gather data to help develop cable laying techniques. Depths along the route they examined with the aid of Deep Quest ranged from 100 to 6,500 feet. At that time, Deep Quest had the deepest diving capabilities of all freely maneuverable submarines.

In 1970, MSC displayed ingenuity when it used a 26-year-old coal carrier to lift 33 U.S. Army helicopters from Bremerhaven, Germany to Charleston, S.C.

The SS Merrimac was used because no other U.S.-flag ship available in Germany was capable of carrying the helos. The 602-foot Merrimac was in Rotterdam, Holland, delivering a load of coal from Norfolk, Va., when tagged for the sealift.

Since 1966, MSC had chartered the Merrimac periodically as a coal carrier, and today the vessel is again under MSC charter.

Merrimac's yawning holds had to be thoroughly cleaned with fresh water before the ship arrived at Bremerhaven. The first problem facing MSC marine transportation specialist Alex Preston was how to load the helicopters without disassembling them.

Preston had only inches to spare in loading the CH-34 Choctaw helicopters. Knowing that there was no room for error, he used a 12-inch wooden model of the hull and scaled tiny paper cutouts to the Choctaw's dimensions.

But his probems didn't end there. He had to convince the Merrimac's master and the German longshoremen that all 33 helos would fit aboard the bulk carrier.

"What we were involved with was a matter of just three inches between each helicopter." Preston said. "I'd be the first to admit that I'd rather have had a foot between the planes." The crossing to Charleston took 13 days and the helos were delivered without any problems.

The laws of physics indicate that what goes up must also come down. However, getting something off the ground is sometimes a challenge.

In the mid-1960s, MSC had one of the most versatile fleets of ships in the world—more than 150 government-owned transports, cargo ships, tankers and scientific ships. Despite that versatility, it was a good bet that MSC would be called

upon to lift unusual military cargo that could not be handled by fleet ships.

Such a case was an Air Force requirement for lift of two 180-ton utility landing craft (LCU) from Charleston, S.C. to the Pacific island of Kwajalein.

Neither of MSC's heavy lift C-4 cargo ships—USNS Marine Fiddler and USNS Brostrom—were available for the job and no other American-flag ship had the heavy-duty lifting gear and deck space to handle the bulky LCUs.

MSC invited bids from the world's shipping companies and brokers. The West German specialist in deep sea, heavy lift—Hansa Lines of Bremen—was awarded the job.

Hansa's motor ship Treuenfels arrived in Charleston in May 1966. Although only 475 feet long Treuenfels had exceptionally powerful gear. Two heavy-lift booms lifting together could pick up a single piece of cargo weighing 260 tons, 100 tons more than either the Marine Fiddler or Brostrom could handle. The lift was completed on schedule.

Since April 1974 MSC has periodically chartered the ocean-going tug MV Whitefoot to conduct sonar calibrations of submarines. Whitefoot's home port is Vinyard Haven, Mass.

In the past 10 years there have been many specialized vessels chartered. For example, the Is-A-Belle, a 36-foot former mackerel fishing boat used for oceanographic survey training of American and foreign military officers in the Chesapeake Bay.

MSC also has chartered the wooden-hulled yacht Black Sea to transfer test personnel and equipment from shore to submarines in southern Florida and the Bahamas. The wooden hull was necessary to avoid damaging submarine hulls while going alongside.

Only when U.S.-flag ships are not available does MSC charter foreign ships. But, U.S.-flag ships are not always available or suitable. The French Government cable ship Marcel Bayard has been chartered to conduct recovery operations in the Azores. The Danish motor vessel A.E.S. was chartered to take stores and a replacement geodetic team to South Georgia Island, 1,000 miles east of Cape Horn at the southern tip of South America.

This summer, MSC chartered the German tug Hanseat to tow a derrick barge from the U.S. Army terminal transportation unit at Praia Terciera Azores, Portugal to Hythe, England. The giant barge had been at Praia for two years and was used in repairing a breakwater severely damaged by violent storms.

As part of this year's bicentennial observances, the aircraft carrier USS Forrestal, in New York Harbor, served as a reviewing stand for 3,000 guests for the International Naval Review on July 4.

One problem was how to more safely move the guests from the Brooklyn Army Terminal to the Forrestal and back again. MSC used two excursion boats at the request of Third Naval District Commandant Rear Adm. Frank B. Guest, who also is commander of MSC, Atlantic.

It was perhaps the first time MSC had chartered passenger ferry boats, although the command has lifted hundreds of thousands of troops and dependents in the past 27 years.

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Editor's Note: In the January 1977 issue of Sealift, Robert A. Carl, special assistant for transportation to the assistant secretary of the Navy for installations and logistics, will recount some of the more unusual craft MSC chartered in its early years. When the command was organized in October 1949, Carl became the first contracting officer. As a lieutenant commander, he remained in that position until January 1954.

In the distance, the German tug Hanseat leaves the Azores and heads to England with a giant Army derrick barge in tow.

Smoke Detectors
Life-Savers for the Home

By Frederick P. McGehan

In Scotch Plains, N.J., a physician had a $3,000 fire alarm system installed in his $120,000 home. The electronically sophisticated system was designed to signal fire and police departments if the temperature at any of 15 points in his house reached 58 degrees C. When a fire occurred at midnight May 14, 1974, the expensive system failed. But a $59.95 smoke detector did go off—as did four others still in cartons in the basement. The doctor, his wife and five children were able to escape. Damage was confined to $10,000.

In Mission Viejo, Calif., a mother and her two young daughters went to bed as usual the evening of July 26, 1975. At 4 a.m. a neighbor awoke to the sounds of fire next door. He and another neighbor were helpless to rescue the mother and her daughters from the blazing structure. They were found asphixiated in the hallway and bedrooms of their $80,000 house. Firemen said later they might have been saved by purchasing a $40 smoke detector.

These two stories illustrate dramatically what many Americans have been discovering—that the purchase of a relatively inexpensive detector may save their homes—and lives—in the event of a fire. Smoke detector sales reached 50,000 when they came on the market in 1971. Last year sales rose to more than a million. And more companies are getting into the lucrative field.

The Commerce Department's National Fire Prevention and Control Administration is spearheading a drive to inform the public of the capabilities and benefits of early-warning fire detection. With increased public awareness has come a demand for authoritative information on the purchase and installation

Photo by Mark Helfer

One smoke detector placed on the ceiling or wall of a hallway outside bedroom areas should provide adequate fire warning in most houses.

of smoke detectors. A focal point for such information is the Center for Fire Research at the National Bureau of Standards.

Richard G. Bright, a senior research engineer, has been studying smoke and heat detectors at NBS for the past three years and is chairman of a committee of the National Fire Protection Assn. which has issued a standard for the installation, maintenance, and use of household fire warning equipment. Bright has recently been joined by Richard Bukowski, a research engineer who previously worked on detectors at Underwriters Laboratories, Inc.

Because of the rising interest in home detectors, Bright has been the subject of numerous media interviews and several television appearances. As the result of an interview on the nationally-televised Today program in April 1975, Bright received more than 1,000 requests from the public for information on detectors. While not endorsing brand names, Bright supplies respondents with basic information on which to base a purchase decision.

There are two basic types of detectors on the market—heat and smoke. Bright finds that smoke detectors are the best buy. "Heat detectors are too slow. They require a significant buildup of heat before they operate," he says, adding that the temperature at the ceiling has to reach at least 65.5 degrees C. In some cases it is not until close to flashover—when the entire room becomes consumed in flame—that the heat detector signals an alarm.

Heat detectors, Bright finds, are unreliable in detecting a fire other than in the room in which they are installed. Thus to protect a house adequately may require from five to 10 heat detectors, at a cost of $50 to $70 each.

"Smoke detectors by their very nature can monitor smoke far from the point of origin because smoke moves—rising to the ceiling or up stairways," Bright says. As a result, one smoke detector placed on the ceiling or wall of a hallway outside the bedroom areas should provide adequate fire warning in most houses. The sleeping quarters are the most vulnerable because about 60 per cent of all fatal household fires occur between 10 p.m. and 6 a.m., when occupants are asleep.

Bright believes that between 40 and 50 per cent of the lives lost in home fires could be saved with the installation of one or more smoke detectors. A study of 200 fire deaths in the Washington, D.C. metropolitan area by Francis Brannigan, associate professor of fire science at Montgomery Community College, showed that in 49 per cent of the cases people might have saved their lives if they had had smoke detectors in their homes.

There are two basic types of smoke detectors—photoelectric and ionization chamber. Bright finds each has its own advantages and disadvantages.

The photoelectric detector has a chamber containing a photoelectric cell. When a light shines across that chamber under normal conditions the photoelectric cell does not register. However, when smoke is present in the chamber it reflects light back into the photoelectric cell, causing the detector to sound an alarm.

According to Bright, the ionization detector is a bit faster in detecting flaming fires while the photoelectric detector is faster in reacting to smoky fires. However, if the ionization detector is placed too close to the kitchen area it may give an occasional false alarm as the result of smoke generated by cooking.

There are two ways to power smoke detectors—by battery or by 120 volt house current. The battery-operated detector is simpler to install, requiring no connection to an electrical outlet. The battery, however, has a lifetime of about one year, although these detectors emit a "chirp" sound when the battery is about to wear out, allowing the homeowner to get a replacement.

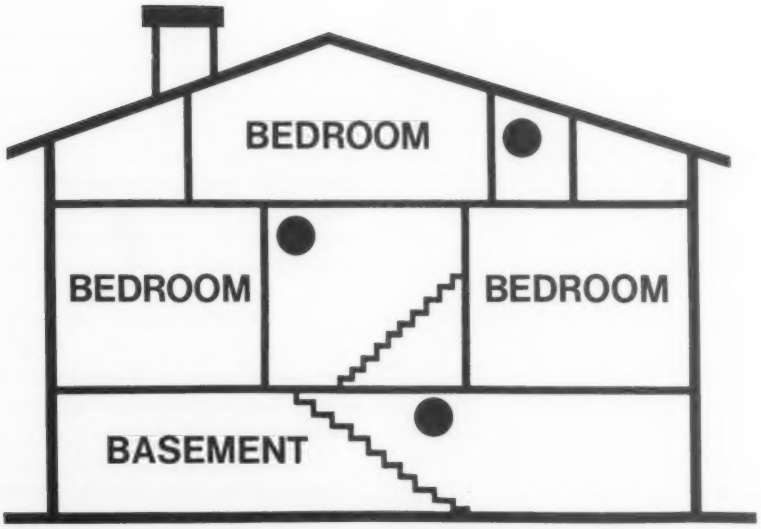
"Taking the time and trouble to put in a 120-volt unit is worth it," Bright says. Most of these detectors come with 270 centimeters of line cord. The alternative is to hire an electrician to install an outlet on the ceiling or high up on the wall. This should add $25 to $50 to the cost. A power outage, of course, would knock out this system. There is at least one detector on the market that operates off of house current but also has a non-rechargeable battery as a backup power system.

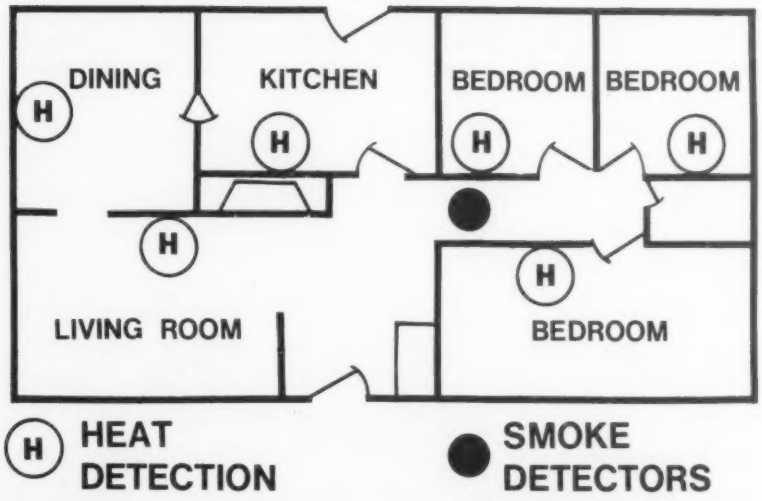
No matter which detector is purchased, Bright advises that a warning device should not take the place of an escape plan for the family members. Depending on the type of fire and warning system, a family may have from two minutes to an hour to get out of a house or apartment before conditions become intolerable. Drills should be held so that family members know what to do in a fire situation, including the possibility of escaping through bedroom windows.

"The best fire detection equipment does no more than tell you a fire is in progress. From this point on what happens is up to you," Bright says. ⚓

Reprinted from Dimensions magazine of the National Bureau of Standards.

Editor's Note: Legislation has been passed in some states making it mandatory to install smoke detectors in residences in 1977. Other states are expected to follow with similar legislation.





(Top) This cutaway view of a two-story house and basement illustrates proper location of smoke detectors when there are bedrooms on several levels. A detector on basement stairway also is recommended.

(Bottom) This floor plan of a six-room, single level house illustrates the difference in protection offered by heat and smoke detectors. A heat detector would be needed in each room for proper protection. One smoke detector can provide same protection.

How Many and Where?

How many detectors you need and where to place them depend in large measure on the type of house or apartment you live in.

If you live in a one-story house with a common corridor joining your bedrooms, one smoke detector mounted on the corridor ceiling or wall near the living area—not the bedrooms—should offer the best protection. If mounted on the wall, the detector should be 15 to 30 centimeters (6 to 12 inches) below the ceiling. This is because smoke tends to flow along the ceiling.

If you live in a multi-level house where there are sleeping areas on more than one floor, separate smoke detectors should be placed outside each of these areas. If the bedrooms are clustered around the top of the stairs, the detector should be installed at the top of the stairs.

In any style house it is important to locate the detector between the bedrooms and other living areas so it can intercept smoke before it reaches the bedroom area. The detector should be close enough to the bedrooms so that an alarm can be heard in the bedrooms, even with the doors closed.

The National Fire Protection Assn. recommends that if the living unit has a basement, a smoke detector should be placed along the basement stairway. A U.S. study showed that 11 per cent of home fires started in basements.

MSC Fleet Support Role Expands

By Linda M. Quinones

"We've Only Just Begun" is not only the title of a popular song, but a phrase which might be used to describe Military Sealift Command's expanding fleet support role.

"Since Charger Log II, a tremendously successful test in which a Navy fleet oiler was transferred to MSC for Civil Service manning and operation, command fleet support requirements have been growing steadily," said Capt. Richard Dietz, MSC fleet support program coordinator.

"In April, May and June, MSC operated fleet support oilers refueled nearly 400 U.S. Navy combatant ships. To increase command capability, another former military-manned oiler recently was turned over to MSC."

"USNS Mississinewa is one of six Neosho class oilers which will eventually be assigned to MSC to replace six of the current fleet oilers whose ages range from 30 to 33 years. Further pointing up MSC's growing fleet support role is the construction of four oceangoing tugs."

Acquisition of the Mississinewa last month brought the number of former Navy fleet oilers the command operates to eight.

USNS Taluga, the first Navy fleet oiler to be operated by MSC, now is being overhauled in Oakland where the vessel was in ready reserve status until last month. In January Taluga will join USNS Marias, Mispillion, Navasota, Pawcatuck, Passumpsic and Waccamaw in supporting the Navy fleet.

Mississinewa was built in 1954 by the New York Shipbulding Corp., Camden, N.J. When manned with a Navy crew, the 655-foot long vessel had a complement of 360 men. Mississinewa's civilian crew will number 105, with a military communication detachment of 16.

Mississinewa will undergo overhaul and modification in Oakland through May 1977 and the ship is scheduled to begin operating in support of the Atlantic fleet by March 1978.

"MSC's technical division worked four months developing modification plans for the Mississinewa," said John Rehme, project engineer for cargo and range instrumentation ships.

"Among modifications will be adding staterooms to accommodate one or two people. When it was a military-manned ship, 30 men slept in one large compartment." In addition, guns will be removed, galley size will be reduced and watertight doors will be installed between the compartments.

"Readying the Mississinewa for MSC operation was handled differently than for similar ships in the past," said Rehme. "In this case the specifications for necessary modifications were developed at MSC headquarters with MSC, Atlantic determining overhaul requirements and MSC, Pacific responsible for overseeing both the modifications and repairs."

Four Navy ocean going tugs to be operated by MSC now are under construction by Marinette Marine Corp. of Marinette, Wisc. Included in the Navy's tentative fiscal year 1978 budget are five others.

The ocean going tugs will be Civil Service manned as are the World War II vintage Ute, Lipan, Mosopelea and Atakapa, all oceangoing tugs assigned by the Navy to MSC for operation.

"These are the first oceangoing tugs specifically constructed for

New tugs being procured by Naval Systems Command will be used to salvage and tow non-operational and battle-damaged ships. All will be operated by MSC. This photo is of a model superimposed on water. The tugs will be named Powhatan, Catawba, Navajo, and Narragansett.

fleet support," said Louis Tippett, an MSC operations analyst. The Ute, Lipan, Mosopelea and Atakapa, had to be modified for Civil Service crewing while repairs were being made."

The new tugs will provide the same types of service performed by the four the command now operates. They will tow target sleds for training exercises, inactivated or damaged fleet ships to preservation and repair sites, and yard craft such as floating drydocks. They also will carry out salvage and diving operations and can be used in firefighting and oil spill cleanup operations.

The 225-foot-long tugs will have cruising speeds of 15 knots and towing speeds of 6 knots. In addition to 16 Civil Service merchant mariners, they will have a four-man military detachment. Twenty-seven crewmen and six military personnel man the World War II tugs MSC now operates.

The four tugs, each costing approximately $7.6 million, will be diesel powered and have a shaft horsepower of 7,200. Maximum full load displacement will be 2,000 tons. Each will have an installed 10-ton crane to assist in handling salvage equipment.

After it is overhauled and modified, Mississinewa will replace an older oiler in the MSC fleet.

Delivery dates for the four new tugs are July 1978, and April, July and October 1979.

"These tugs are only slightly larger than those the command now operates, but they are fully automated," said Alan Reid of the ships concepts and development division who visited Marinette for the keel laying of the first tug in October. "The automated engine room and other machinery can be operated unattended, thus, a smaller crew is required."

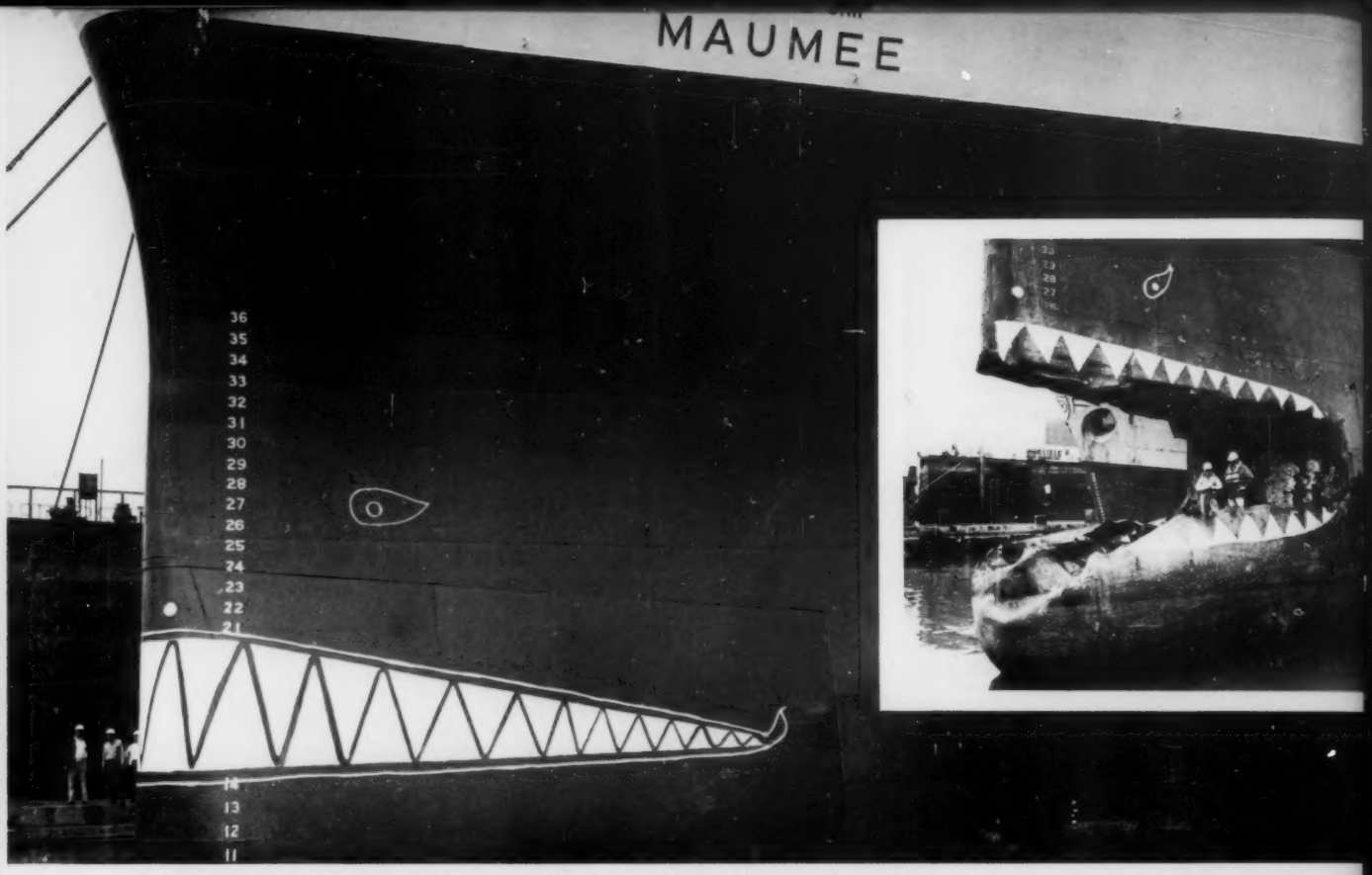
"In addition to the conventional, single-drum, wire-rope winch the World War II tugs are equipped with, the new tugs will have a synthetic line traction machine. One already is aboard Atakapa for testing."

Plans are to replace MSC's four fleet support tugs with the new tugs as they are delivered. Two will be under the administrative control of MSC, Atlantic. The other two will be operated by MSC, Pacific.

One person who feels MSC Civil Service manned ships will play an increasingly prominent role in fleet support is Lt. Sidney Emery. Lieutenant Emery observed MSC fleet support oilers in action while stationed aboard the Pacific fleet guided missile cruiser USS Halsey.

Now special assistant for plans with MSC headquarters, he was much impressed by the MSC merchant mariners manning fleet support ships that refueled the Halsey during his three-year tour aboard the guided missile cruiser.

"Their skill and professionalism earned the support of the men aboard the carriers, destroyers and frigates, and they have come to expect reliable service from the MSC Civil Service manned fleet support oilers."



A determined grin on her newly repaired face, the USNS Maumee is again ready to face Antarctic ice floes that scarred and chewed away at her bow during last year's Antarctic resupply. Both the repairs and the "teeth" were made at Bethlehem Steel Corp. Baltimore shipyard. The dental bill came to more than $1 million.

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